



SIKA AT WORK

PRINCE ALFRED COLLEGE BOARDING HOUSE ADELAIDE

Products: SikaFiber® PPM 48/19

BUILDING TRUST



PROJECT BACKGROUND

THE FIVE STORY BOARDING HOUSE IS CATERING FOR 150 STUDENTS & 10 IN-HOUSE STAFF

- The Five story boarding house is catering for 150 students & 10 in-house staff. And the building consists of 150 rooms grouped into 13 houses arranged around a number of small communal areas. The ground floor consists of a range of staff offices, amenities & back of house services as well as an entrance foyer, recreation area & associated kitchen. Level 1 to 4 includes student bedrooms, meeting areas, and tutorial areas, communal areas with kitchenettes and staff dwellings
- All the suspended slabs are hollow core which are covered with a 50mm topping slab incorporating SL82 mesh.
- The hollow core slabs are commonly used for medium size multi-story buildings in SA as it is cost effective as well as speedy construction compared to other suspended slab systems
- The ground level walls are precast coloured concrete and the upper levels are precast grey coloured concrete

PROJECT REQUIREMENTS

- Concrete should be easy to pump, placed and finished covering the voids of wall slab joints without complex procedures
- Bonded 50mm topping slab should be easily vibrated, levelled and finished over the hollow core slab
- Need to maintain minimum 20mm top cover for the SL82 mesh in the topping slab
- Minimal shrinkage cracks on bonded topping slab with good hand troweled finish
- Faster construction

SIKA SOLUTION

- There was an issue of maintaining the cover to SL82 mesh where the mesh overlaps. Therefore, only option was to go with plain concrete or Fibre Reinforced Concrete
- Considering the crack control requirements of the topping slab which will be covered with tiles and carpets, Sika proposed Sika Fiber PPM 48/19 at a dosage rate of 4.6kg/m³ for the topping
- Concrete slump was maintained around 80mm for quick and easy finishing of the slab especially at set downs
- Concrete was supplied by Direct mix and fibre has been added to the truck at the batching plant



SIKA PRODUCT USED: SIKAFIBER® PPM 48/19

PROJECT SIZE & OUTCOME	2000kg for SikaFiber PPM 48/19 mixed, placed and finished for the project without a single complaint from engineers, contractor or concrete placement team.
DESIGN ENGINEER	PT Designs Adelaide
SIKA STATE SALES MANAGER	Tony White
SPECIFICATION ENGINEER	Chaminda Jayathilake
CLIENT	Prince Alfred College Adelaide SA
CONCRETE SUPPLIER	Direct mix Adelaide
DATE	31/07/2018
LOCATION	23 Dequetteville Terrace, Kent Town, South Australia 5071

WE ARE SIKA

Sika is a specialty chemicals company with a leading position in the development and production of systems and products for bonding, sealing, damping, reinforcing and protecting in the building sector and the motor vehicle industry. Sika's product lines feature concrete admixtures, mortars, sealants and adhesives, structural strengthening systems, flooring as well as roofing and waterproofing systems.

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